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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/387,804	09/01/1999	JOEL ERNEST SANDAHL	117401/ML-04	3035

7590 04/05/2005  
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ROCHESTER, NY 14623

EXAMINER


SHIMIZU, MATSUICHIRO

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s) 	
	09/387,804	SANDAHL, JOEL ERNEST	
	Examiner	Art Unit	
	Matsuichiro Shimizu	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 28-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-26, 28-69 and 74-76 is/are allowed.
- 6) ☒ Claim(s) 70-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

The examiner acknowledges currently amended claim 70.

***Response to Arguments***

Applicant's arguments with respect to claims 70-73 have been considered but are moot in view of the new grounds of rejection using new prior art of Schwendeman (5,491,469).

Therefore, rejection of claims 70-73 follows:

***Claim Rejections – 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner

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to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 70–73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. (5,924,042) in view of Schwendeman (5,491,469).

Regarding claim 70, Sakamoto teaches a method of distributing page messages to radio receiving paging units (Fig. 3, MSn) over an area through a plurality of different page message transmission systems (Fig. 3, BSn or transmission systems) forming part of a wide area transmission system, the method comprising the steps of:

(a) transmitting system messages at a predetermined frequency (col. 18, lines 46–67, different frequencies to prevent interference among frequencies) from each of the transmission systems which includes information of transmission system identification and radio frequency of transmission of page messages (col. 2, lines 16–36; col. 10, lines 43–47, BS id and emergency messages), wherein a transmission system identification associated with a first of the transmission systems of the wide area transmission system is different from a transmission system identification associated with a second of the transmission systems forming a part of the wide area transmission system (col. 2, lines 16–36; col. 10, lines 43–47, BS ids and emergency messages within LRAX (wide area transmission system)) and further wherein transmission of certain page messages by the first transmission system may be at a first radio frequency that is different than a second radio frequency of transmission of certain page messages by the second transmission system (col. 18, lines 46–67, different frequencies to prevent interference among neighboring base station or transmission systems);

(b) transmitting system messages (col. 2, lines 16–36, periodically to mobile station the BS id) by the first transmission system to at least one of the paging units to identify the second transmission system and the second radio frequency of transmission by the second transmission system (col. 18, lines 46–67, different frequencies to prevent interference among neighboring base station or transmission systems); and

(d) operating the said at least one of the paging units so as to receive page messages from the second transmission system at the second radio frequency (col. 18, lines 46–67, predetermined frequency). But Sakamoto does not teach (c) storing in memory within the said at least one of the paging units information relative to the identification of the second transmission system and information relative to the identification of the second radio frequency (col. 18, lines 46–67, different frequencies to prevent interference among neighboring base station or transmission systems) from at least one of the system messages of step (b).

However, Schwendeman teaches, in the art of pager system, message including city ID wherein storing code memory is programmed with alternate frequencies (Fig. 17, col. 11, line 63 to col. 12, line 7, two transmission systems associated with two paging terminals transmitting different frequencies; col. 12, lines 21–26 and 45–53, messages including city ID) for different cities for the purpose of providing efficient use of frequencies. Furthermore, one skilled in the art recognizes since city ID is associated with frequency, message including city ID is same as message including city ID and frequency, and program to store different city IDs' associated with different frequencies in code memory is a matter of choice in programming. Therefore, it would have been obvious to a person skilled in the art at the time of invention was

made to include (c) storing in memory within the said at least one of the paging units information relative to the identification of the second transmission system and information relative to the identification of the second radio frequency from at least one of the system messages of step (b) as a matter of choice in design because Schwendeman suggests transmitting and storing in code memory is programmed with alternate frequencies and one skilled in the art recognizes (c) storing in memory within the said at least one of the paging units information relative to the identification of the second transmission system and information relative to the identification of the second radio frequency from at least one of the system messages of step (b) is a matter of choice in design through routine experimentation in order to achieve optimum operation.

Regarding claim 71, Sakamoto teaches the method according to Claim 70 wherein the paging unit is adjusted automatically to receive page messages from the second transmission system in accordance with the information stored in memory in step (c) (col. 18, lines 46–67, mobile station automatically notifying new frequency to base station or transmission system).

Regarding claim 72, Sakamoto teaches the method according to Claim 71 further comprising:

(e) prior to step (b):

(A) transmitting system messages by the first transmission system to the paging unit to identify the first transmission system (col. 2, lines 16–36, BS id and associated frequency) and the first frequency of transmission by the first transmission system;

(B) storing in memory within the paging unit information relative to the

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identification of the first transmission system and information relative to the first radio frequency of transmission of page messages from the first transmission system (col. 2, lines 16–36, BS id and associated frequency; col. 10, lines 43–47, urgent message or memo); and

(C) operating the paging unit so as to receive page messages from the first transmission system at the first radio frequency (col. 2, lines 16–36, BS id and associated frequency; col. 10, lines 43–47, urgent message or memo).

Regarding claim 73, Sakamoto teaches the method according to Claim 70 further comprising: (e) prior to step (b):

(A) transmitting system messages by the first transmission system to the paging unit to identify the first transmission system and the first frequency of transmission by the first transmission system (col. 2, lines 16–36, BS id and associated frequency; col. 10, lines 43–47, urgent message or memo);

(B) storing in memory within the paging unit information relative to the identification of the first transmission system and information relative to the first radio frequency of transmission of page messages from the first transmission system (col. 2, lines 16–36, BS id and associated frequency; col. 10, lines 43–47, urgent message or memo); and

(C) operating the paging unit so as to receive page messages from the first transmission system at the first radio frequency (col. 2, lines 16–36, BS id and associated frequency; col. 10, lines 43–47, allowance of call setup for urgent message or memo).

***Allowable Subject Matter***

Regarding claims 1–26, 28–49, 59–60 and 62, the prior arts fail to teach or fairly suggest each of said paging units including a memory storing information representing the current registered transmission system of the paging unit and a respective paging unit controller for determining when the paging unit receives at least one of the system messages sent by one of said transmission systems different from the current transmission system registered to the paging unit; sending means for sending to the system controller at least information identifying the transmission system from said received system message sent by one of said transmission systems different from the current transmission system registered to the paging unit.

Regarding claims 50–52, the prior arts fail to teach or fairly suggest a paging system comprising: a plurality of paging units capable of receiving page messages and system messages when located in the coverage area of at least one of the transmission systems, in which each of said paging units, when receiving at least one of the system message sent from one of said transmission systems different from the transmission system to which said paging unit is registered, transmits to the routing means at least the information from the received system message identifying the transmission system, a memory and a paging unit controller in at least one of the paging units for determining a time period or periods in which system messages were not received after a predefined interval from the transmission system to which the paging unit is registered.

Regarding claims 53–57 and 61, the prior arts fail to teach or fairly suggest a method for providing page messages to radio receiving paging units over a wide area through a plurality of regional transmission systems comprising the steps of:



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registering each of said paging units to one of said transmission systems, in which one or more of said paging units comprise one-way paging units, a memory of each paging unit storing information representing the one of said transmission systems to which the paging unit is registered; and re-registering one of the paging units to a different one of said transmission systems from the transmission system the paging unit is registered when the paging unit receives at least one of the system messages sent from one of said transmission systems different from the transmission system to which said paging unit is registered and wherein at least one of the system messages includes an identifier that identifies a transmission system different from the transmission system the paging unit is registered to in accordance with a comparison with the information stored in the memory of the paging unit.

Regarding claims 58 and 63-64, the prior arts fail to teach or fairly suggest a one-way radio receiving paging unit comprising: means, including a memory storing information related to the transmission system registered to the paging unit, for determining when the one-way paging unit receives at least one of the system messages sent by one of said transmission systems different for the transmission system registered to one-way paging unit; and means, responsive to said determining means, for providing a signal including information corresponding to the telephone access number for use in changing registration of the one-way paging unit.

Regarding claim 65, the prior arts fail to teach or fairly suggest determining if the paging unit is receiving a system message from a regional transmission system that the paging unit is not registered to; and

providing a request to change the registration of the paging unit and identifying a second regional transmission system from which it has received a

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system message and which is different from said first regional transmission system which the paging unit is currently registered to; and

providing an updated registration for the paging unit and providing an updated registration code stored in the memory of the paging unit, the updated registration code including a regional identifier code identifying a third regional transmission system that is different than the regional identifier code identifying said first registered transmission system and different than a regional identifier code associated with said second regional transmission system.

Regarding claim 66, the prior arts fail to teach or fairly suggest determining for a paging unit that it is receiving a system message from a second regional transmission system that it is not registered to, said system message being received by the paging unit at the first frequency;

providing a request to change registration of the paging unit in accordance with a determination from said determining step; and modifying the registration code of the paging unit to establish an updated registration for receipt of page messages with an updated registration code, the updated registration code including information relative to identification of the second regional transmission system and the second frequency of transmission of messages.

Regarding claims 67–68, the prior arts fail to teach or fairly suggest

storing in memory within a paging unit information relative to a period or periods of non–receipt of the system messages from the respective currently registered regional transmission system;

communicating to a controller external to the paging unit information relative to a period or periods of non-receipt of the system messages from the respective currently registered regional transmission system; and

newly transmitting in accordance with the information relative to the period or periods of non-receipt, page messages to the paging unit comprising page messages previously transmitted by the previously currently registered regional transmission system to the paging unit during the period of non-receipt.

Regarding claim 69, the prior arts fail to teach or fairly suggest storing in memory within the paging unit information relative to a period of non-receipt of system messages from the transmission system;

communicating to a controller external to the paging unit information relative to a period of non-receipt of the system messages from the transmission system; and

newly transmitting to the paging unit from a transmission system, in accordance with the information relative to the period of non-receipt, page messages previously transmitted to the paging unit during the period of non-receipt but not received by the paging unit during said period.

Regarding claim 74, the prior arts fail to teach or fairly suggest in response to a determination by the paging unit controller that there is non-receipt of the periodic system messages for a predetermined time period or periods, providing a signal by the paging unit to identify the period or periods of non-receipt of system messages.

Regarding claims 75-76, the prior arts fail to teach or fairly suggest a paging unit controller within the paging unit operative to determine if there is receipt by the paging unit of periodic system messages transmitted by one of the

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regional transmission systems, and in response to a determination by the paging unit controller that there is non-receipt of the periodic system messages for a predetermined time period or periods during which the paging unit is operative to receive the periodic system messages, the paging unit controller is operative to provide a signal to identify the period or periods of non-receipt of system messages.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

March 25, 2005



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